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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/762,050

01/16/2004

Christoph Schilling

NI 161

4473

7590

09/25/2006

KLAUS J. BACH & ASSOCIATES
PATENTS AND TRADEMARKS
4407 TWIN OAKS DRIVE
MURRYSVILLE, PA 15668

EXAMINER

EDMONDSON, LYNNE RENEE

ART UNIT

PAPER NUMBER

1725

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,050

Applicant(s)

SCHILLING ET AL.

Examiner

Lynne Edmondson

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1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/12/06.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. It is noted that applicant has filed a translation, which includes a copy of the claims. The active claims in the file, which have not been amended, are those filed 11/13/05.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8 and 10 are rejected under 35 U.S.C. 102(a) as being anticipated by Nishihara (JPN 2002-256453 A, machine translation).

Nishihara teaches a friction stir welding method comprising the steps of placing workpieces on top of each other and lowering the rotating pin tool, which comprises a shoulder and pin, toward the lowermost workpiece until the tool contacts the top surface of the lowermost workpiece and plasticized material fills the recess. Members are joined in a form-locking manner and the pin is approximately the thickness of the upper member (figure 1 and abstract). It is noted that the nature of the process is such that

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friction heat is generated which plasticizes the material of the workpieces, creating a fine microstructure, which is typically free of voids and oxides.

4. Claims 1-7 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Okamoto et al. (US 2004/0194942 A1).

Okamoto teaches a friction stir welding method comprising the steps of placing interlocking workpieces on top of each other and lowering the rotating pin tool, which comprises a shoulder and pin, toward the lowermost workpiece until the tool contacts the top surface of the lowermost workpiece (figures 2, 8 and 10, paragraphs 7-11 and 56-60). It is noted that the nature of the process is such that friction heat is generated which plasticizes the material of the workpieces, creating a fine microstructure, which is typically free of voids and oxides.

Response to Arguments

5. In response to applicant's argument that the Okamoto reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the lower member is neither penetrated nor plasticized) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, it is not clear how the members would bond with no plasticizing of the lower member. The conventional friction stir process plasticizes both flat members forming a stronger joint at the interface due to the heated processing of both members. Applicant's drawings show a lower member with a recess into which material flows, however this limitation is not claimed.

Regarding the argument that the filing date of Okamoto is 1/16/04, it is noted that the reference is a continuation with an effective filing date of 12/20/01 from the parent case.

Therefore the 102 rejection of claims 1-7 and 10 as anticipated by Okamoto stands.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakamura et al. (USPN 6599641 B1, contact top surface of lower member, joining area, overlapped).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (571) 272-1172. The examiner can normally be reached on Monday through Thursday from 6:30 a.m. to 5 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lynne Edmondson
Primary Examiner
Art Unit 1725

LRE
9/20/06

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